ATTACHMENT J03

White Sands Missile Range Wastewater Collection and Treatment System

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J03 White Sands Missile Range Wastewater Collection and Treatment System

J03.1 White Sands Missile Range Overview

J03.1.1 History and Development

White Sands Missile Range (WSMR, White Sands or Installation) is a national test range designed to support research, development, testing, and evaluation for the Army, Navy, Air Force, National Aeronautics and Space Administration, and other approved U.S. Government agencies and foreign governments. White Sands also plans and conducts development testing and evaluation of Army missiles, rockets, and materiel systems.

WSMR is located in south-central New Mexico in a region known as the Tularosa Basin between the Sacramento Mountains to the east and the San Andres and Organ Mountains to the west. The Main Post /Headquarters Area are located 20 miles east of Las Cruces, New Mexico and 45 miles north of El Paso, Texas. The Installation boundaries extend almost 100 miles north to south by 40 miles east to west. At almost 3,200 square miles, WSMR is the largest military installation in the country.

The Installation opened on 9 July 1945 as White Sands Proving Ground, and was later renamed to White Sands Missile Range. One week after it's opening, the first atomic bomb was exploded on the Installation at an area known as Trinity Site. Missile testing began in September 1945 with Tiny Tim firings and "took off" with captured German V-2 rockets in 1946. White Sands served as the landing site for the space shuttle Columbia on 30 March 1982 at the range's Northrup Strip.

White Sands has over 840 sets of family quarters. Temporary quarters are usually available for the new families. Civilian personnel are authorized on-base housing, on a space-available basis. Sixty-four units are available for unaccompanied military personnel as well. Today, WSMR is divided into five major areas: Main Post Area, Small Missile Range (SMR), MAR site, HELSTF, and Stallion Range.

J03.1.2 Satellite Locations

Covering almost 3,200 square miles the range is the largest military installation in the country. Although still within the boundary of White Sands, the Installation possesses remote/satellite areas/sites/ranges that include the Launch Complex (SMR and MAR site), HELSTF, and Stallion Range. Notwithstanding, the wastewater collection and treatment system presently extends only to the Stallion Range, HELSTF, Main Post and Main Post Housing areas.

J03.2 Wastewater Collection and Treatment System Description

J03.2.1 Wastewater Collection and Treatment System Fixed Equipment Inventory

The White Sands Missile Range wastewater collection system and associated treatment facilities consists of all appurtenances physically connected to the wastewater collection system between the points of demarcation at the wastewater effluent facility to (and including) the lagoons where discharge takes place. The actual inventory of items sold will be conveyed to the Contractor using the Bill of Sale at the time the system is transferred.

The Government reserves the right to connect to the wastewater collection system and use the distribution system for any future requirement that may be built / installed within the Installation boundaries.

The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the distribution system. The description and inventory were developed based on best available record data.

The Offeror shall base its proposal on site inspections, information in the technical library, and other pertinent information, as well as the following description and inventory. As described in Paragraph C11.1, *Equitable Adjustment*, if after award the Offeror identifies additional substantial inventory not listed in Paragraph J03.2.1.3, *Inventory*, the Offeror may submit to the Contracting Officer a request for an equitable adjustment. If the Offeror determines that the inventory listed in Paragraph J03.2.1.3, *Inventory*, is overstated, the Offeror shall report the extent of the overstatement to the Contracting Officer, who will determine an equitable adjustment. The intent is not to encourage piecemeal adjustments but rather address significant adjustments that have significant bearing on capital replacement investments.

J03.2.1.1 System Description

The WSMR wastewater collection and treatment system is a conventional series of gravity flow laterals, mains, and manholes. There are three small can type lift stations at WSMR. All wastewater treatment is either by the Main Post wastewater treatment plant (WWTP), a package unit at a remote site (DATTS East), or a septic tank system (Stallion Range Camp). The collection system comprises approximately 142,071 linear feet of cast iron, concrete, polyvinyl chloride (PVC) and vitrified clay piping with associated manholes. The average age is approximately 40 years, but all of the PVC piping has been installed in recent years. Pipe sizes range from less than 4-inches to 15-inches. Building services are predominantly 4, 6, and 8-inches in diameter.

The Main Post area is serviced by a 1 million gallons per day (MGD) trickling filter sanitary treatment plant constructed in 1958. The 21-inch inlet flows into the headworks with a mechanically cleaned bar screen and debris separator. Waste then enters a Parshall flume where it is split and directed to two 35-foot diameter primary clarifiers. The plant contains four (4) splitter boxes, two (2) 100-foot diameter trickling filters, two (2) 35-foot diameter primary and secondary digesters, two (2) pump houses, two (2) 35-foot diameter secondary clarifiers, a

sludge recirculation pump, and heat exchanger. There is a new, three-cell, reinforced polymer concrete drying bed system. The DATTS East area uses a package plant with effluent flowing to an approximately one-acre evaporative lagoon. The Stallion Range Camp sanitary system uses a septic tank and multi-celled evaporative lagoon system approximately 1.8 acres in size. A separate evaporative lagoon approximately 0.25 acre in size receives wastewater from the water treatment plant.

Under the U.S. Army Residential Community Initiative (RCI), WSMR's housing will be privatized as of 1 July 2005. Coordination may be required with the new family housing owner regarding easements and system infrastructure redesign.

WSMR has 2004 (in progress) and 2005 (in design) Major Construction Army projects that are not reflected in the inventory due to the premature state of utility data. Upon completion, the newly constructed utility system infrastructure will be transferred to the successful Offeror.

J03.2.1.2 Wastewater Collection and Treatment System Points of Demarcation

The point of demarcation is defined as the point on the wastewater collection system where ownership changes from the Grantee to the building owner. During the operation and maintenance transition period, concurrence on specific demarcation points will be documented during the joint inventory of facilities.

TABLE 1
Points of Demarcation
Wastewater Collection and Treatment System – White Sands Missile Range, New Mexico

Point of Demarcation	Applicable Scenario	Sketch
Point where the service line enters the structure.	Sewer system flow meter is located on the service line entering the structure.	Sewer System Service Line Flow Meter Structure Point of Demarcation Sewer System
Point of demarcation is the cleanout device if within 10 feet of the building perimeter.	No flow meter exists and a sewer system cleanout is located within 10 feet of the building perimeter on the service line.	Sewer System Service Line Pipe Cleanout Structure Point of Demarcation Sewer System

Point of Demarcation	Applicable Scenario	Sketch
Point where the service line enters the structure. Note: A new cleanout device should be installed within 10 feet of the building during any stoppage or maintenance action. This will then become the new point of demarcation.	No flow meter or cleanout exists on the service line entering the structure.	Sewer System Service Line Structure Point of Demarcation Sewer System
The point of demarcation is the downstream side of oil/water separator.	All oil/water separators and grease traps.	Wastewater Collection Pipe Service Line Structure Oil/Water Separator Point of Demarcation

J03.2.1.3 Inventory

Table 2 provides a general listing of the major wastewater system fixed assets for the Installation's wastewater collection system and associated treatment facilities included in the purchase. When not specifically identified by system drawings, the size and type of system components were estimated based on the size of the piping the component was connected to. Additionally, when the year of construction was not known, it was estimated based on the age of the adjacent piping or age of the facility served. The system will be sold in an "as is, where is" condition without any warrant, representation, or obligation on the part of the Government to make any alterations, repairs, or improvements. All ancillary equipment attached to and necessary for operating the system, though not specifically mentioned herein, is considered part of the purchased collection and treatment system.

TABLE 2Fixed Inventory
Wastewater Collection and Treatment System – White Sands Missile Range, New Mexico

Item	Size	Туре	Approximate Quantity	Unit	Approximate Year of Installation
Pipe	<4-inch	Unknown	2,158	LF	1953
	4-inch	Cast Iron	131	LF	1963
	4-inch	Polyvinyl Chloride	545	LF	2003
	4-inch	Steel	1,277	LF	1952
	4-inch	Vitrified Clay	2,663	LF	1963

Item	Size	Type	Approximate Quantity	Unit	Approximate Year of Installation
	4-inch	Unknown	3,132	LF	1962
	6-inch	Cast Iron	200	LF	1963
	6-inch	Concrete	582	LF	1963
	6-inch	Polyvinyl Chloride	1,006	LF	2003
	6-inch	Steel	2,321	LF	1952
	6-inch	Vitrified Clay	17,095	LF	1963
	6-inch	Unknown	11,965	LF	1962
	8-inch	Concrete	31,644	LF	1963
	8-inch	Polyvinyl Chloride	3,379	LF	2003
	8-inch	Vitrified Clay	42,056	LF	1963
	8-inch	Unknown	8,066	LF	1962
	10-inch	Vitrified Clay	2,504	LF	1963
	10-inch	Unknown	230	LF	1963
	15-inch	Polyvinyl Chloride	9,513	LF	2003
	15-inch	Vitrified Clay	<u>1,604</u>	LF	1963
Total Pipe			142,071	LF	
Building Se	ervices (assume	61-feet of pipe per service)	1,351	Each	1952
Service Cle	anouts		1,351	Each	1963
Manholes			348	Each	1962
Air Relief \	Valves		82	Each	1963
Sewage Lif	t Stations				
Comm	nissary Lift Stati	on (2 pumps, 0.5 HP, 50 gpm)	1	Each	1998
Las Cı	ruces Lift Statio	n (2 pumps, 1.0 HP, 60 gpm)	1	Each	1993
NED Lift Station (2 pumps, 10 HP, 120 gpm)			1	Each	1991
Wastewater	r Treatment Pla	nts			
Main l	Post WWTP		1	Each	1958
DATT	S-East WWTP	(packaged unit)	1	Each	1987
Septic Tani	k - Stallion Ran	ge Center	1	Each	1960

Item	Size	Туре	Approximate Quantity	Unit	Approximate Year of Installation
Sewage Lag	goons				
Stallion Range Center – Lagoon No. 1			1	Each	1960
Stallion Range Center – Lagoon No. 2			1	Each	1960
DATTS-East Sewage Lagoon			1	Each	1987
Ultraviolet Disinfection System			1	Each	2003

J03.2.2 Wastewater Collection and Treatment System Non-Fixed Equipment and Specialized Tools

Table 3 lists other ancillary equipment (spare parts), and Table 4 lists specialized vehicles and tools included in the purchase. Offerors shall field-verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

TABLE 3 **Spare Parts** Wastewater Collection and Treatment System - White Sands Missile Range, New Mexico

Quantity	Item	Make/Model	Description	Remarks
				treatment system will be ventory of spare parts for
the facilities.		viie sysveiii ziie ziiiiiy v	-00	ventory or spure pures for

TABLE 4 Specialized Vehicles and Tools Wastewater Collection and Treatment System - White Sands Missile Range, New Mexico

Quantity	Item	Make/Model	Description	Remarks
No specialized	vehicles for ma	intenance of the Installat	ion's wastewater collec-	tion and treatment system
will be availab	ole to the new	owner of the system.	The Army does not r	naintain an inventory of
specialized vehi	icles for the fac	ilities.		

J03.2.3 Wastewater Collection and Treatment System Manuals, Drawings, and Records

Table 5 lists the manuals, drawings, and records that will be transferred with the system.

TABLE 5

Manuals, Drawings and Records

Wastewater Collection and Treatment System – White Sands Missile Range, New Mexico

Quantity	Item	Description	Remarks			
Available manuals, drawings, records, and reports included in the Technical Library will be						
transferred with th	transferred with the collection system and associated treatment facilities.					

J03.3 Specific Service Requirements

The service requirements for the Installation's wastewater collection system and associated treatment facilities are as defined in Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the wastewater collection and treatment system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

J03.3.1 Excavation Marking/Digging Process

J03.3.1.1 Contractor Participation in Digging Permit Process

The Contractor shall subscribe to the regional process for notification and marking of underground utilities. The Contractor shall mark all utilities in the time windows defined by this process. In some cases, where non-metallic lines do not have tracer wires, it may take longer to locate the lines. In these cases, the Contractor will make necessary notifications about a possible delay in the marking process. The Contractor shall be responsible for all repairs, costs, and damages due to excavations by others for which he did not properly mark his utilities as part of the utility marking process. Generally, utility lines will be marked with pin flags or spray paint.

J03.3.1.2 Contractor Excavation Requirements

The Contractor shall notify the regional one-call dispatch center of his digging requirement. The Contractor shall also obtain digging permits from the Installation before any drilling, digging, or excavation is undertaken. Permits will identify all underground utilities within five feet of the designated area. Since utility marking is an inherently imprecise process, excavation within five feet of the marked utilities will be done by hand. The Contractor shall be responsible for all repairs, costs, and damages due to his excavations that fail to comply with the DPW digging permit process and the requirements listed herein; this includes excavations extending beyond areas that have been cleared for excavation.

J03.3.2 Emergency Response

Because of the critical nature of many mission requirements, response to utility emergencies must be immediate. The Contractor will respond with a knowledgeable individual to emergency utility problems within 30 minutes of notification during duty hours and within 2 hours during

non-duty hours. Additionally, repair crews must be on scene within one hour during duty hours and within two hours during non-duty hours.

J03.3.3 Restricted Access

The Contractor shall coordinate and obtain approval for restricted area access.

J03.3.4 Crisis Situations

IAW Paragraph C.9.8, *Exercises and Crisis Situations Requiring Utility Support*, the Contractor shall provide support as directed by the Base Operations (BaseOps) Office at (505)678-1116 during duty hours and (505) 678-1116 during non-duty hours for exercises and crisis situations. The Contractor shall submit Emergency Response Plans for approval by the Government for all exercise and crisis situations IAW Paragraph C.9.8.

J03.4 Current Service Arrangement

Currently, wastewater collected is lifted then discharged into lagoons located within the WSMR boundaries.

J03.5 Secondary Metering

There are currently no secondary meters included with the wastewater collection system and/or associated treatment facilities being privatized, and no requirements for secondary metering of wastewater at the WSMR facilities included in this contract. Any future wastewater secondary metering requested by the Government will be IAW Paragraph C.3, *Metering*.

J03.5.1 Existing Meters

Table 6 lists the existing (at the time of contract award) meters that will be transferred to the Contractor. The Contractor shall provide meter readings for all secondary meters IAW Paragraphs C.3.3, *Metering* and J03.6, *Monthly Submittals*.

TABLE 6

Existing Secondary Meters

Wastewater Collection and Treatment System - White Sands Missile Range, New Mexico

Facility	Building No.	Square Footage
None Identified		

J03.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 7**. New secondary meters shall be installed IAW Paragraphs C.3.3.1, *Future Meters*, and C.13, *Operational Transition Plan*. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3.3, *Metering* and J03.6, *Monthly Submittals* below. At the present time, the Installation does not require any new meters to be installed; notwithstanding, new and fully renovated buildings will require secondary meters. On an as needed basis, the Offeror shall also provide and install meters for the duration of various U.S. Army Corps of Engineers

construction projects. Regarding metering requirements for the U.S. Army Corps of Engineers construction projects, the WSMR Utilities Services Office will contact the Offeror to advise of meter location, and when to initiate meter readings.

TABLE 7
New Secondary Meters
Wastewater Collection and Treatment System – White Sands Missile Range

Facility	Building No.	Square Footage
None Identified		

J03.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. **Invoice.** (IAW Paragraph G.2, *Submission and Payment of Invoices*). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. The Contractor shall provide sufficient supporting documentation with each monthly invoice to substantiate all costs included in the invoice for each CLIN as approved by the Contracting Officer. The proposed system of accounts shall be made available in electronic format as directed by the Contracting Officer. Invoices shall be submitted by the 10th of each month for the previous month. Invoices shall be submitted to:

Name: Contracting Officer (or his designee as stipulated at time of award)

Address: Directorate of Contracting

Bldg 143, 2nd Floor

Army Contracting Agency, Southwest Region

White Sand Missile Range, NM 88002

Phone number: (to be provided at time of award)

2. **Outage Report.** The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 10th of each month for the previous month. Outage reports shall be submitted to:

Name: Contracting Officer (or his designee as stipulated at time of award)

Address: Directorate of Contracting

Bldg 143, 2nd Floor

Army Contracting Agency, Southwest Region

White Sand Missile Range, NM 88002

Phone number: (to be provided at time of award)

3. **Meter Reading Report.** The monthly meter reading report shall show the current and previous month's readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. The Contractor shall contact the WSMR Utilities Services Office for a meter reading schedule during the first week of December for the following calendar year.

Specific wastewater system data required by the WSMR Utility Services Office to compute annual wastewater rates for charging reimbursable customers will be provided by the Contractor Quarterly (i.e. Jan – Mar, Apr – Jun, Jul – Sep, Oct – Dec). Meter reading reports shall be submitted by the 10th of each month for the previous month. Meter reading reports shall be submitted to:

Name: Ms. Alicia Gray

Address: Directorate of Installation Support

Bldg 102

Regulatory Compliance & Energy Office White Sands Missile Range, NM 88002

Phone number: (to be provided at time of award)

J03.7 Energy and Water Conservation Projects

IAW Paragraph C.3.4, *Energy and Water Efficiency and Conservation*, the following projects have been implemented by the Government for conservation purposes.

• WSMR was selected for a feasibility study to reclaim treated wastewater effluent to irrigate the golf course. The study start date is pending.

J03.8 Service Area

IAW Paragraph C.4, *Service Area*, the service area is defined as all areas within the boundaries of the Installation.

J03.9 Off-Installation Sites

As described in earlier paragraphs, there are no off-site installations / facilities included in this privatization action.

J03.10 Specific Transition Requirements

IAW Paragraph C.13, *Operational Transition Plan*, **Table 8** provides a list of service connections and disconnections required upon transfer.

TABLE 8

Service Connections and Disconnections

Wastewater Collection and Treatment System – White Sands Missile Range, New Mexico

Location		Description
None		

J03.11 Government Recognized System Deficiencies

Table 9 provides a list of Government recognized deficiencies. The deficiencies listed may be physical deficiencies, functional deficiencies, or operational in nature. If the wastewater collection and treatment system is sold, the Government will not accomplish a remedy for the

recognized deficiencies listed. The Offeror shall make a determination as to its actual need to accomplish and the timing of any and all such deficiency remedies.

Physical and functional deficiencies may require capital to be invested in the system. If any deficiency remedy requires a capital upgrade project, the capital upgrade project shall be proposed according to the following:

- Capital upgrade projects required to bring the system to industry standards shall be proposed under Schedule 3 Initial Capital Upgrade(s)/Connection Charge(s).
- Capital upgrade projects required to replace system components shall be proposed in the first years of Schedule 2 – Renewals and Replacements – 50-Year Schedule, and the cost factored into Schedule 1 – Fixed Monthly Charge, for renewals and replacements, as part of CLIN AA.
- Transition costs shall be proposed as a one-time cost and shall be treated similar to a capital project and included in Schedule 3 Initial Capital Upgrade(s)/Connection Charge(s).
- Improvements proposed in the operational component of the work shall be included in Schedule 1 Fixed Monthly Charge as part of CLIN AA.

TABLE 9System Deficiencies
Wastewater Collection and Treatment System - White Sands Missile Range, New Mexico

Work Request Description	Location
Disinfection of Effluent (Note 1)	WWTP
Replace methane meter and mixers	WWTP Digesters
Rehab primary clarifiers	WWTP Primary Clarifier
Rehab secondary clarifiers	WWTP Secondary Clarifier
Replace return lines	WWTP

Note 1 - This Project has approved Government funding, and the Government will execute this project.